

## CLAIMS

What is claimed is:

- 5           1. A resource allocation method comprising:
- receiving a request for an interactive session from a user, wherein said request  
comprises a resource requirement profile for defining a virtualized computing resource  
that supports said interactive session;
- selecting a computing resource having an affinity to said user from a plurality of  
10   computing resources available to said user, wherein said computing resource comprises  
said virtualized computing resource and requires the least amount of initialization to  
support said interactive session; and
- assigning said computing resource to said user to support said interactive session.
- 15           2. The method of Claim 1, wherein said selecting a selected computing resource  
further comprises:
- selecting said computing resource from said plurality of computing resources as  
having files in memory that will be used in said interactive session.
- 20           3. The method of Claim 1, wherein said selecting a selected computing resource  
further comprises:
- selecting an available computing resource previously assigned to said user and  
reserved for said user as said computing resource if said user is a frequent user; and
- selecting another computing resource as said computing resource that best satisfies  
25   said resource requirement profile if said available computing resource previously assigned  
to said user is not available.
4. The method of Claim 1, further comprising:

selecting said computing resource from said plurality of computing resources that best satisfies said resource requirement profile if said user is not a frequent user.

5           5. The method of Claim 1, further comprising:  
pinning said selected computing resource to said user after an end to said  
interactive session.

6. The method of Claim 1, further comprising:  
creating a new home directory for said user if a home directory for said user does  
10 not exist in said computing resource; and  
assigning said new home directory to a dynamic account associated with said  
computing resource.

7. The method of Claim 1, further comprising:  
15 assigning an existing home directory for said user on said computing resource to a  
first dynamic account that is reserved for said user; and  
assigning an existing home directory for said user on said computing resource to a  
second dynamic account that is available to said user if no dynamic account is reserved for  
said user.

20           8. The method of Claim 1, further comprising:  
updating files assigned to said user in said selected computing resource for use in  
said interactive session.

25           9. The method of Claim 1, wherein said plurality of resources are configured in a  
grid computing environment.

10. A resource allocation system comprising:

a plurality of computing resources that are dynamically allocated to users according to demand and resource requirement profiles;

an information services module for maintaining resource profiles of each of said plurality of computing resources;

5 a file archival for providing a backup storage system for files associated with said plurality of computing resources; and

a manager for assigning a selected computing resource from said plurality of computing resources to a user requesting an interactive session, wherein said selected computing resource has an affinity for said user.

10

11. The resource allocation system of Claim 10, wherein said plurality of computing resources is configured in a grid computing environment.

12. The resource allocation system of Claim 10, wherein said manager further  
15 comprises:

an affinity module for selecting said selected computing resource to said user based on said affinity for said user.

13. The resource allocation system of Claim 12, wherein said affinity defines said  
20 selected computing resource as requiring the least amount of initialization to support said interactive session.

14. The resource allocation system of Claim 12, wherein said affinity module considers factors to determine said affinity, wherein said factors comprises at least one of  
25 a list comprising:

reserved dynamic account; and  
reserved memory space.

15. The resource allocation system of Claim 10, wherein said manager selects a computing resource as said selected computing resource from said plurality of computing resources that undergoes the least amount of initialization before being able to support said interactive session.

5

16. The resource allocation system of Claim 10, wherein said manager further comprises:

a dynamic account manager for assigning a dynamic account associated with said selected computing resource to a home directory of said user, wherein said dynamic  
10 account is reserved for said user.

17. The resource allocation system of Claim 10, wherein said manager further comprises:

a dynamic account manager for assigning a dynamic account associated with said  
15 selected computing resource to a home directory of said user, wherein said dynamic account is not reserved for said user.

18. A computer system comprising:

a processor; and

20 a computer readable memory coupled to said processor and containing program instructions that, when executed, implement a resource allocation method comprising:

receiving a request for an interactive session from a user, wherein said request comprises a resource requirement profile for defining a virtualized computing resource that supports said interactive session;

25 selecting a computing resource having an affinity to said user from a plurality of computing resources available to said user, wherein said computing resource comprises said virtualized computing resource and requires the least amount of initialization to support said interactive session; and

assigning said computing resource to said user to support said interactive session.

19. The computer system of Claim 18, wherein said selecting a computing resource in said method further comprises:

5        selecting said computing resource from said plurality of computing resources as having files in memory that will be used in said interactive session.

20. The computer system of Claim 18, wherein said selecting a computing resource in said method further comprises:

10        selecting an available computing resource previously assigned to said user and reserved for said user as said computing resource if said user is a frequent user; and  
      selecting another computing resource as said computing resource that best satisfies said resource requirement profile if said available computing resource previously assigned to said user is not available.

15

21. The computer system of Claim 18, wherein said method further comprises:  
      selecting said computing resource from said plurality of computing resources that best satisfies said resource requirement profile if said user is not a frequent user.

20        22. The computer system of Claim 18, wherein said method further comprises:  
      pinning said selected computing resource to said user after an end to said interactive session.

23. The computer system of Claim 18, wherein said method further comprises:  
25        creating a new home directory for said user if a home directory for said user does not exist in said computing resource; and  
      assigning said new home directory to a dynamic account associated with said computing resource.

24. The computer system of Claim 18, wherein said method further comprises:  
assigning an existing home directory for said user on said computing resource to a  
first dynamic account that is reserved for said user; and

5        assigning an existing home directory for said user on said computing resource to a  
second dynamic account that is available to said user if no dynamic account is reserved for  
said user.

25. The computer system of Claim 18, wherein said method further comprises:  
10        updating files assigned to said user in said selected computing resource for use in  
said interactive session.

26. The computer system of Claim 18, wherein said plurality of resources are  
configured in a grid computing environment.

15